

Exhibit 928-3

The Facts On File
DICTIONARY
of
COMPUTER SCIENCE

Revised Edition

Edited by
John Daintith
Edmund Wright

 **Facts On File**
An imprint of Infobase Publishing

The Facts On File Dictionary of Computer Science
Revised Edition

Copyright © 2001, 2006 by Market House Books Ltd

All rights reserved. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval systems, without permission in writing from the publisher. For information contact:

Facts On File, Inc.
An imprint of Infobase Publishing
132 West 31st Street
New York NY 10001

Library of Congress Cataloging-in-Publication Data

The Facts on File dictionary of computer science. / edited by John Daintith, Edmund Wright. — Rev. ed.

p. cm.

Includes bibliographical references

ISBN 0-8160-5999-3

1. Computer science—Dictionaries. I. Daintith, John. II Wright, Edmund (Thomas Edmund Farnsworth). III. Facts on File, Inc.

QA76.15.F345 2006

004.03—dc22

2006042004

Facts On File books are available at special discounts when purchased in bulk quantities for businesses, associations, institutions, or sales promotions. Please call our Special Sales Department in New York at (212) 967-8800 or (800) 322-8755.

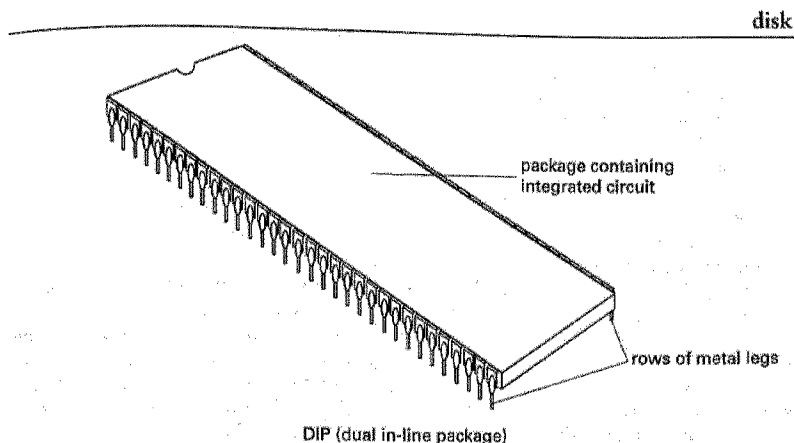
You can find Facts On File on the World Wide Web at
<http://www.factsonfile.com>

Compiled and typeset by Market House Books Ltd, Aylesbury, UK

Printed in the United States of America

MP 10 9 8 7 6 5 4 3 2 1

This book is printed on acid-free paper



then called a *direct address*. See also address.

direct data entry See DDE.

direct memory access (DMA) A method of transferring data between main store and other storage devices without involving the CENTRAL PROCESSOR. Without DMA, every byte or word of data has to be individually transferred from main store to the central processor, and then written to the destination device (or vice versa). With DMA, the central processor initiates the transfer by informing an I/O processor of the source and destination of the data and the total number of bytes or words to be transferred. The I/O processor then performs the transfer, and informs the central processor (probably by means of an INTERRUPT) when the transfer is complete. The central processor can continue to operate during the DMA.

directory A FILE in a computer system containing a list of filenames, their locations on BACKING STORE, and their size, as well as other information such as creation date, author, date of last access, and FILE PROTECTION code. A computer system may have many directories, usually organized in a HIERARCHICAL FILE SYSTEM where directories can contain other directories (*subdirectories*) as well as data files. On a MULTIACCESS SYSTEM each user normally has a directory, and possibly subdirecto-

ries, and there are one or more shared directories. Units of removable media (CDs, DVDs, floppy disks, etc.) each have their own directory. Directories are used by the operating system to locate files when given their names, and by computer users to keep track of what files are available. See also folder.

DirectX /dā-rekt-eks/ A Windows application program interface (API) for creating and manipulating graphic images and multimedia effects. It is used in games and in active Web pages. Games specifications will often require a certain level of DirectX to be implemented before the game can be played.

disable To switch off a device or prevent the operation of a particular function of a device or a particular feature of a program. Compare enable.

disassembler A program that attempts to translate machine code back into ASSEMBLY LANGUAGE, i.e. it performs the reverse function of an ASSEMBLER. It is used as an aid to DEBUGGING. It is only the one-to-one relationship between machine instructions and assembly language instructions that makes this process possible. It does not work with high-level languages.

discrete data See computer.

disk See magnetic disk; optical disk.